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Commonwealth Edison Company ("ComEd") appreciates the opportunity to comment on the twenty-eight questions posed in Chairman Box's June 29, 2006 memorandum and supports the efforts undertaken by the Illinois Commerce Commission ("Commission" or "ICC") through the Illinois Energy Solutions Forum ("Forum"). As discussed further below, ComEd shares the Commission's interest in "seeking ways to immediately help customers cope with rising electric costs," as evidenced by the recent introduction of the ComEd Customers' Affordable Reliable Energy (or "CARE") program.

The questions posed by the Commission highlight several important short-term and long-term issues for consideration as Illinois approaches the end of the mandatory transition period and advances into a new era in the restructured Illinois electric utility industry. As the Commission is well aware, the end of the mandatory transition period marks the end of the mandatory rate freeze, as well as the 20% residential rate reduction, and the return to cost-based rates for bundled electric supply service. ComEd's electricity supply costs, like those of other restructured electric utilities (and nearly all gas utilities) in the state and the nation, will be determined by the competitive wholesale market, which is greatly influenced by factors such as supply and demand as well as changes in regulations and fuel prices--which, in turn, are influenced by numerous factors, such as weather and worldwide demand. This movement to rates that are more reflective of actual market conditions will not only advance the development of competitive retail markets, as contemplated in the 1997 Restructuring Act, but will also greatly improve the price signals for customers concerning their electricity usage. In so doing, beginning in January 2007, an important (and currently missing) nexus will be created between ComEd's rates and the reality of the new energy environment.

ComEd, however, recognizes that after nine years of artificially frozen and reduced rates, an abrupt step into this new era in the industry may be difficult for many customers to understand and/or manage, particularly in light of recent trends in market prices and the lack of robust competition in the small commercial and residential retail markets. As the local delivery services provider, ComEd also recognizes that it is in a unique position to assist the consumers of Northern Illinois—whether they obtain their electricity supplies from ComEd or not--in coping with the changes that are occurring. To this end, ComEd has already initiated outreach efforts and taken action.

Communicating timely and accurate information to customers is one of ComEd's highest priorities. Since last year, ComEd has been engaged in a robust customer awareness and education effort, which now also includes the CARE program for residential customers. The following is an overview of the actions ComEd has taken to date:

<u>Commercial and Industrial Customers</u>: As discussed further below, ComEd has been proactively working with its large commercial and industrial customers and municipal

customers over the past year to inform them of the changes that will occur and trends in energy markets. ComEd's External Affairs Department and Energy Services Organization have been meeting regularly with these customers as new information has become available. Customer brochures were developed and distributed to assist in keeping these customers informed. In addition, ComEd has conducted multiple "Blue Ribbon Panels" with industry experts and internal rate experts for its large commercial and industrial and municipal customers across its service territory. ComEd has also developed Rate Fact Sheets for customers that discuss special topics related to the new rates.

Residential Customers: As the Commission is well aware, in Docket No. 05-0159, the ICC Staff proposed, and the Commission approved, a rate mitigation plan that essentially caps the increase in energy rates for residential and small business rate classes at the higher of 20% or 150% of the system average increase. With respect to residential customers, the CARE program essentially builds upon this plan by further capping the 2007, 2008 and 2009 residential rate increase at 8%, 7% and 6%, respectively, and deferring recovery of such costs until the 2010 to 2012 time period (all within certain limits discussed further in Docket No. 06-0411).

The educational component of CARE, which is discussed further below, represents ComEd's first steps towards heightening awareness among residential customers of the changes that are occurring in rates and the industry and what consumers can do in response to such changes to minimize their electricity bills. Increasing the efficient use of energy by customers is an integral part of the CARE education effort, which is focused on empowering customers to take control of their usage and their bills. In this respect, the CARE initiative, coupled with the core demand response programs ComEd has proposed in Docket No. 05-0579, also represents ComEd's first steps towards the implementation of longer term solutions that will be developed in response to Governor Blagojevich's Sustainable Energy Plan and the Commission's Resolution in Docket No. 05-0437.

At this point, in light of the imminent end to the rate freeze, ComEd believes that the emphasis of the Forum should be on the issues raised by the Commission in the "Short-term Solutions" section of its memorandum. Nevertheless, in response to the questions posed, ComEd sets forth its views, albeit preliminary, on the more profound issues raised in the "Longer-Term Solutions" section of the memorandum. ComEd also touches upon some of the extensive work that it has performed in preparation for the ICC rulemaking proceedings that were specifically initiated by the Commission to address longer-term solutions. By sharing the preliminary results of its efforts through these comments, ComEd hopes to advance the progress of the proceedings already in motion. In ComEd's opinion, energy efficiency will play a vital role in enabling customers to manage longer-term trends in the energy market.

ComEd looks forward to future discussions through the Forum and offers the following responses to the specific questions posed by the Commission:

### **Short-Term Solutions: Consumer Education**

1. What types of programs could be introduced in Illinois to provide consumers the tools and information they need to better monitor, manage and control their electricity consumption and thus their energy bills? How should the success of these programs be measured?

Electricity rates are going up across the country and Illinois is not immune to that fact. ComEd customers' rates will increase beginning in January 2007, and ComEd is concerned about the impact that rate increases will have on customers, especially low-income customers and seniors.

ComEd believes that it would be helpful for residential consumers to (1) learn about the changes affecting their energy bills so as to set the context and imperative for behavior change and (2) be provided with energy educational materials and instructive tools, along with assistance programs where necessary, to help them change their behaviors and better manage their energy usage, thereby reducing the impact of future rate increases. ComEd believes that its customers should be informed about these initiatives prior to the end of the transition period in Illinois. Furthermore, Governor Blagojevich's Sustainable Energy Plan and the Commission's adoption of the Plan (Docket 05-0437) have emphasized the importance of energy efficiency efforts in managing the State's energy needs. This is, in part, why ComEd initiated the CARE program in July 2006.

CARE is ComEd's initiative to help residential customers manage their energy bills in preparation for electricity rate increases coming in January after the nine-year rate freeze ends. The three key features of CARE are an energy efficiency campaign to inform and empower consumers to manage their energy usage and reduce their bills, special programs to assist low-income and senior customers and a rate stabilization proposal to phase in residential rate increases over time.

The CARE programs address the needs of several groups within the residential class. Some programs are available to all customers, i.e. public education campaign, while others are designed especially for low-income customers, seniors, or individuals with specific needs, as outlined below:

# CARE Programs Available to All Residential Customers

- ENERGY STAR® Compact Fluorescent Light Bulb Program: This rebate program provides ComEd residential customers with a financial incentive to purchase high-efficiency compact fluorescent light bulbs at participating national hardware and home improvement chain stores located throughout ComEd's service territory. It is set to kick off in Fall 2006.
- www.ComEdCARE.com: This brand-new website has information and tools to help consumers save money on their electricity bill. Among the site's resources are:
  - <u>ComEd Energy Doctor</u>: Consumers can submit energy-saving questions online to the ComEd Energy Doctor, an in-house energy efficiency expert.
  - Online Energy Store: Consumers can purchase energy-saving products (such as compact fluorescent light bulbs, ceiling fans, timers and thermostats) at a 20 percent discount.
  - Online Energy Audit: Beginning fall 2006, consumers can use an interactive energy tool to understand how they are using electricity and what they can do to reduce their bill. The audit also includes energy-saving tips customized to the individual's home or business.
  - Energy Efficiency Tips: Consumers can reduce their electricity usage with just a few simple steps. ComEdCARE.com has practical solutions that are easy to implement and will lower bills. Customer information is also available at 888-806-CARE (2273).
- Energy Efficiency Showcase: Twelve residential customer homes will be part of the Energy Efficiency Showcase, a ComEd-sponsored public education initiative, conducted in partnership with the Center for Neighborhood Technology. From now through 2007, a dozen homes of varying sizes, types, and ages throughout northern Illinois will receive an energy efficiency overhaul. These homes will be used as models to educate customers.
  - Each home selected will initially undergo a thorough energy audit to identify and quantify opportunities to improve overall energy efficiency.
  - The ComEd-funded projects may include installing energy-efficient appliances and light bulbs, improving insulation, weather-stripping doors and windows, and other improvements saving these customers 20% to 35% on their electricity and gas bills. ComEd will be looking to implement new and innovative energy efficiency measures.
  - Utilizing the ComEd CARE website, ComEd will create a resource to educate customers based on the changes made at the various houses participating in the Energy Efficiency Showcase. Customers will be able to visit www.ComEdCARE.com to view the various opportunities identified and implemented at each location and watch how-to videos of the energy-

- efficiency improvements in progress, including do-it-yourself tips. Pictures and videos of some of the actual retrofits will be included to help customers understand exactly what some of the measures entail.
- On the website, information concerning energy consumption both before and after the retrofits and the costs to implement such measures will be provided.

# CARE Programs Available to Low-income Customers and Seniors

- <u>LIHEAP Assistance</u>: As part of a partnership with the Illinois Department of Healthcare and Family Services ("DHFS"), ComEd will donate \$1 million in 2006 to the Low-Income Home Energy Assistance Program ("LIHEAP") to help low-income customers with their electricity bills.
- ENERGY STAR® Window Air Conditioner Exchange Program: ComEd has partnered with private, state and local agencies to identify 1,400 LIHEAP participants to participate in the window air conditioner exchange program. Customers will receive an ENERGY STAR® window air conditioning unit in exchange for trading in their old and inefficient (but working) window air conditioning unit. The old air conditioners will be recycled and decommissioned.
- Free Compact Fluorescent Light Bulbs: ComEd's LIHEAP participants will receive a coupon for four free ENERGY STAR® compact fluorescent light bulbs in fall 2006.

Summer is a good time to launch the CARE initiatives because this is the time of year electricity bills tend to be higher, and there is greater awareness and opportunity for customers to start reducing their usage. Furthermore, it is ComEd's understanding, after consulting various communication experts that a target audience should be exposed to advertising messages five times or more for a communication plan such as this to be optimally effective. The ComEd outreach plan is built around this goal; ComEd intends to reach as many of the 3.5 million customers as soon it can. With this in mind, CARE was rolled out with ads launched the week of July 10. The TV, radio and print ads will be seen and heard throughout the Chicago area and Rockford through the end of October. The purpose of the advertising is to educate ComEd customers about the end of the rate freeze, the investments ComEd has made to ensure customers have reliable electricity, and the steps ComEd is taking to help customers better manage their energy usage. All of the ads will feature the dedicated toll free number and the ComEd CARE Web site address. In addition to the above advertising, ComEd will be reaching out to customers through other forums, including, but not limited to bill inserts, community festival participation and energy efficiency seminars. ComEd wants to ensure that customers are aware of the increases so that they can take the appropriate steps to prepare for them.

As to measuring the success of these types of programs, there is an inherent difficulty in measuring the effectiveness of education and awareness programs. ComEd's ENERGY STAR® compact fluorescent light bulb and the air conditioning programs are designed to

provide customers an opportunity to reduce their energy usage, and energy savings will be estimated based upon actual participation.

# 2. What role should the various stakeholders take in educating consumers? What should that level of effort be?

- a. Commission
- **b.** Utility companies
- c. State of Illinois
- d. CUB and other consumer interest groups
- e. Others

Each of the entities listed above may have a role in the education of customers. The nature and extent of that role, however, needs to be determined by each entity for itself. Utilities play a role in informing and educating their customers regarding utility rates, tariffs and services in the ordinary course of business.

As discussed above, ComEd has examined its own relationship with its customers and decided to take additional steps that it believes will be helpful to those customers in managing the transition to higher prices for electricity. With respect to residential customer, those steps are the educational components of the CARE program discussed above.

With respect to commercial and industrial customers, ComEd has already begun the process of educating large commercial and industrial and municipal customers on the changes that will be occurring. ComEd's External Affairs Department and Energy Services Organization have been meeting with these customers regularly as new information has become available. Customer brochures were developed and distributed to assist in keeping these customers informed. In addition, ComEd has conducted multiple "Blue Ribbon Panels" with industry experts and internal rate experts for its large commercial and industrial and municipal customers across its service territory. These Panels presented information on energy costs across the country and how they compare to ComEd's rates, the success of the energy procurement auction in New Jersey, and an overview of ComEd's new rate design and structure. For municipal customers, ComEd has conducted and distributed individualized analyses of their water pumping and street lighting accounts to show potential bill impacts under the new rate structure. Finally, ComEd has developed Rate Fact Sheets for customers that discuss special topics related to the new tariffs and rate structure.

Some other efforts that have already been completed and are continuing and expanding this year include: a series of more than seven front page Energy@Home customer newsletter articles; two separate bill inserts (letter from Frank Clark in 2005, CARE insert scheduled for August 2006); informative customer brochures (CARE) distributed at town hall meetings, via the Internet and at libraries and municipal offices; more than 60 completed speaking engagements and town hall meetings to date with customers, community groups and employees; dozens of appearances on public affairs programs, including WBEZ-AM, WCIU-TV, WTTW's Chicago Tonight, WLS-AM, WBBM-AM, WGCI-AM, and WVON-AM; and training and talking points for ComEd's Customer Service Representatives to be prepared to

talk with customers about rate changes, including customer reps specifically dedicated to handling calls to the CARE hotline. There has also been a comprehensive internal communications campaign to inform employees, which includes face-to-face meetings, a biweekly newsletter solely on Post 2006, letters to employees' homes, employee pocketcards and regular articles in other employee publications and on the intranet site.

Later this year, ComEd will also provide customers information regarding the restructuring of its rates (e.g., the unbundled rate structure, changes to rate classifications) and the new bill format that will be implemented in January 2007. Two brochures on the new rates and bills will be distributed at town hall meetings, via the Internet and at libraries and municipal offices.

Finally, it should also be noted that seminars are also planned for later this year to assist alternative suppliers in understanding the various tariff changes.

3. The Commission is considering initiating a workshop process to provide interested parties with the opportunity to provide input on how educational material should be designed, what topics should be covered and how the materials should be disseminated. Is there value in such a workshop and what specific issues should be addressed? Please explain.

ComEd believes that Commission-sponsored workshops would be useful, particularly in gathering input on, developing and coordinating future educational materials that will be produced by the various parties and ComEd. ComEd has already developed educational materials and is in the process of introducing and disseminating new materials through the CARE program as noted above.

4. What short-term education efforts are being planned in response to the ComEd rate stabilization docket (06-0411) and the Ameren securitization (06-0448) docket?

CARE includes educational components relating to ComEd's rate stabilization proposal, which would apply to all residential customers.

5. Who should take the lead role in promoting the education effort? Please explain.

Please see the response to Questions #2 and #3 above.

6. What programs have other states undertaken to educate consumers on how to deal with high energy bills? How successful are these programs? How is success measured? Which programs are applicable to Illinois?

It is ComEd's understanding that certain states have some recommendations to educate customers to mitigate higher rates in general, but the scope and the details of their requirements vary widely. Some states offer general instructions, while others lay out detailed requirements, and provide for funding. Responsibility for customer education

programs is oftentimes given to the state commission. Other states assign responsibility variously to the utility, joint groups of stakeholders, working groups, or else mention no specific assignment.

Most utilities reach out to residential customers through various forms of mass marketing, such as radio ads, bill inserts, online education and print ads. ComEd, in developing its CARE initiative, used the State of California's Flex Your Power ("FYP") website (<a href="https://www.FYPower.org">www.FYPower.org</a>) as a template for ComEdCARE.com. The California website has been active for several years and thus is more comprehensive than the current ComEd website.

The California Public Utility Commission initiated the FYP campaign in 2001. The campaign has been partially credited with reductions in energy use in California during the summer of 2001, following the energy crisis of 2000. California achieved a 14% reduction in electric peak demand in 2001.

Roughly 95% of Californians have been reached multiple times by the FYP media campaign. The website received between 2,000 and 3,000 hits per day and its content encourages efficiency n the broadest sense with inclusion of electricity, natural gas, gasoline and water. The website is available in three languages: English, Spanish and Mandarin Chinese.

Additionally, in designing the ComEdCARE website, ComEd consulted the educational energy efficiency websites for Connecticut Power & Light, Florida Power & Light and Portland General Electric. A comparative analysis of these websites pointed to several educational components that needed to be considered in ComEd's website design. Those components are:

- Number of 'clicks' for customer to be linked to other energy efficiency resources?
- How expansive is the listing of energy and cost saving tips?
- Inclusion of an online audit tool.
- Inclusion of case studies.
- Inclusion of an energy efficiency newsletter.
- Number of links to incentives offered by other entities.
- Links to contractor database.

The FYP website ranked highest for inclusion of all of the above components, with Florida Power & Light and Portland General following close behind. All of these components were considered in the CARE website design, with some components being planned for future phases.

ComEd does not have extensive information concerning the efforts, if any, to measure the success of these programs or how success may be measured in these states. Clearly, success is a relative concept, the measurement of which depends greatly upon the scope of the programs and circumstances under which they are being deployed. In the case of FYP, evaluation criteria included the ability to convey energy efficiency messages and information to Californians, to motivate consumers to include energy efficiency considerations in their

purchase decisions and to maximize target advertising reach and frequency. Their measurement and verification tools included consumer focus groups, advertising reach and frequency verification and retailer participation verification.

Illinois' and the Commission's experience with increases in natural gas prices and rates in previous years and any programs implemented in response to such increases may also provide a frame of reference for this inquiry.

# 7. What programs have been or are being implemented in other states to mitigate rising energy costs?

Rising energy costs have been mitigated in other states in a variety of ways, including the introduction or revising to automatic fuel adjustment clauses, rate stabilization plans and various other plans that offset anticipated increases.

According to the June 2006 Edison Electric Institute report, "Rate Issue Identification & Trends Analysis" (at page 1), "[b]oth regulators and utilities are being challenged by the magnitude and rapidity of changes in fuel costs. The response of regulators to these changes – while nearly always treating them as beyond the control of utilities – has varied greatly from state to state."

In a fundamental sense, the majority of states has policies in place to provide for the timely recovery of fuel and purchased power changes. These states have established automatic adjustment clauses for the timely recovery of changes in fuel and wholesale power costs. The purpose of these mechanisms is to smooth out the volatility in these costs as well as to prevent the buildup of large deferred cost balances.

Nearly all states have policies in place to provide for the timely recovery of fuel and purchased power cost changes. Only two states – Utah and Vermont – do not currently have mechanisms for the recovery of such costs outside of a base rate case. The aforementioned EEI report (at page 2) summarizes the efforts as follows:

States have responded to high costs with various plans to smooth increases. On the one hand, one state (Missouri) that had previously not allowed the flow through of costs outside of a rate case has enacted a law to allow such mechanisms. Similarly, parties in a Utah PSC rate case have agreed to discuss establishing an adjustment mechanism for their utility where none existed before. On the other hand, several other states are contemplating substantially revising or possibly eliminating existing recovery mechanisms.

Regulatory treatment accorded fuel and purchased power adjustment clauses is often complex with many detailed differences from state to state and company to company, as are the clauses themselves. But one significant commonality among all the recent state actions is that none has outright denied recovery or permission to defer costs.

Some states have capped the amount of change within each adjustment period, but the under-recovered amounts are consistently allowed deferred accounting treatment.

Some states have mitigated rate increases by either changing the pace of recovery or otherwise increasing such deferrals. Without commenting on the merits on these two examples, ComEd offers summaries of the Baltimore Gas and Electric ("BGE") and Delmarva Power & Light ("DP&L") plans below.

The BGE Rate Stabilization Plan ("RSP") for residential customers is as follows:

- BGE's residential rate increase, which took effect July 1, 2006, is to be limited to 15% (versus the 72% estimated as a result of recently completed auctions).
- The new rates are to remain in place through May 31, 2007.
- From June 1, 2007 through December 31, 2008, customers may have the ability to "opt in" to an interim RSP (to be formulated by the Maryland Public Service Commission) or to transition to full market rates.
- Full market rates for all customers are to be implemented January 1, 2008.
- Any unrecovered power costs associated with the phase-in plan will be deferred, with recovery to occur over up to a 10-year period.
- Securitization of the deferrals is permissible. It is estimated that the deferrals would aggregate to between \$700 million and \$1 billion.
- BGE will be required to implement residential rate credits of \$38.6 million annually for 10 years, consisting of suspension of both the residential return component of the administrative charge included in the standard offer service rates (\$20 million) and a credit related to nuclear decommissioning costs (\$18.6 million). Note that these rate credits had been proposed previously by BGE and Governor Ehrlich, but were linked to approval of the pending merger between BGE parent, Constellation Energy Group, and Florida Power & Light.

Delaware enacted a law mandating a specific phase-in approach for DP&L's lesser, but still substantial rate increase (59%), which the governor implemented through executive order. DP&L's RSP has the following features:

- Rates increase 15% effective May 1, 2006.
- An incremental 25% hike will be effective January 1, 2007.
- An incremental 19% increase will be effective June 1, 2007.
- Amounts not collected during the phase-in are to be deferred for recovery through a separate customer—specific charge that would include carrying charges, and would be in place from January 1, 2008 through June 1, 2009.
- The Delaware Public Service Commission has the ability to alter the phase-in schedule after January 1, 2007.
- Customers have the opportunity to "opt out" of the phase in plan. Roughly 50% of DP&L's residential customers have done so.

The phase-in plans approved for the residential customers of BGE in Maryland and those of DP&L in Delaware have different features but are substantially similar to each other, as well as to the plans approved for the Maryland service areas of Pepco and DP&L.

As a point of comparison only, BGE and DP&L's RSPs raise rates higher in the first year than ComEd has proposed and adjusts customers to rates that reflect full market costs sooner than ComEd's plan. In addition, the recovery of BGE's regulatory asset has been extended to 10 years as opposed to the previously considered 2-year period.

8. Describe any education efforts associated with demand response, energy efficiency, real-time pricing, LIHEAP and the impending rate increases that are planned or currently underway. Provide all documents associated with the education efforts.

ComEd educates commercial and industrial customers on the importance of participation in demand response programs in a variety of ways. ComEd works directly with participants to define curtailment strategies and make sure participants are aware of program requirements. ComEd's Account Managers discuss program options with non-participants and attempt to increase participation annually. Furthermore, qualifying residential customers are informed about ComEd's Nature First central air conditioner cycling program at the time they sign up for electric service and through bill inserts and materials available on the ComEd website. Participating residential customers are also educated on the results and impact of their participation in summers that cycling events occur. Attachment 1 contains examples of the written educational materials used with respect to the demand response programs ComEd propose to continue beyond 2006. Please also see ComEd's response to Question #9 below.

The CARE initiative encompasses the current educational efforts that are underway for energy efficiency and the impending rate increases. The CARE materials and <a href="https://www.ComEdCARE.com">www.ComEdCARE.com</a> will provide details on how consumers can lower their monthly bill with energy efficiency tips at no and low cost to consumers, for home-owners or renters, along with useful energy usage tips for all types of appliances. Copies of ComEd's CARE materials are included in Attachment 2. Also included in Attachment 2 are samples of the other educational materials used with commercial and industrial customers concerning the changes to ComEd's tariff structure (i.e., the aforementioned Rate Fact Sheets).

With respect to LIHEAP, ComEd conveys most information regarding LIHEAP through bill inserts and bill mailings. Also, ComEd issues press releases periodically to promote the LIHEAP program. However, DHFS is the governmental organization that is charged on a state level with promoting and organizing outreach efforts. DHFS promotes LIHEAP through the Local Administering Agencies ("LAAs") of LIHEAP. These agencies coordinate the LIHEAP application process and enter all pertinent information into the states LIHEAP.net System.

9. How well can residential customers get information on their power use in a timeframe in which they can change their behavior? How can this be improved?

Information about actual and historic energy usage is provided to residential customers on their monthly bills. Specifically, residential customers receive aggregated kilowatt-hour usage data on their monthly bill, along with additional information on historic usage and weather (for prior month and same month last year), consistent with the requirements of Part 410 of the Commission's Rules (83 Ill. Adm. Code Part 410).

In the short term, the monthly usage information currently provided, coupled with an energy efficiency program, is generally sufficient for residential customers to begin changing their usage behavior and managing their bills. Indeed, the greatest and most immediate opportunities for residential customers to save on energy costs would come through the elimination of unnecessary usage altogether and by curbing growth in future usage, as discussed further below. If customers modify their energy usage to be more efficient (e.g., by using efficient appliances, adjusting the temperature in their homes in an energy-efficient manner, by insulating and weatherstripping their homes, etc.), they will use as little electricity as practicable and, thus, be saving as much as practicable on their electric bills. Making residential customers aware of how they generally use electricity, as shown for Midwestern customers in the table below, and how they can modify their usage is an important first step towards gaining control of electricity bill.

#### 2001 Residential End-Usage Consumption in East North Central Region HVAC-related Appliances (e.g., Other Home furnace fans, dehumidifiers) (2%) Electronics (2%) Clothes Washer (1%) Personal Computer (2%) Dishwasher (3%) Refrigerator (14%) Cooking (3%) Other Equipment (3%) Television (3%) Air Conditioning (11%) Freezer (4%) Furnace Fans (4%)Other Kitchen Other End-Uses [e.g. Irons, Hair Appliances (5%) Dryers, and Power Tools] (10%)Clothes Drver (6%)Water Heating Lighting (9%) - Space Heating (6%) Source: EIA

To get detailed information about a customer's electricity usage, a new meter would need to be installed. The first step up in capability would be to install a meter that records half-hour integrated demands and is read monthly. These meters would provide feedback on a monthly

NOTE: Data available at http://www.eia.doe.gov/emeu/reps/enduse/er01\_enc\_tab1.html

basis, and coupled perhaps with some form of web-based presentment, would allow customers to view various graphs and charts to analyze consumption patterns. This service is provided to customers through ComEd's Energy Data Services ("EDS"), but has only been utilized by commercial and industrial customers due to costs and complexity.

The next step up in capability would allow for the same half-hour interval data to be received on a daily basis. However, to accomplish this, a very significant infrastructure enhancement would be required. Daily delivery of data requires a communication from the meter on a daily basis, typically accomplished through an AMR (automated meter reading) or AMI (advanced metering infrastructure) technology. These technologies are regularly analyzed by ComEd for possible deployment. To date, a solution that brings the right mix of functionality and cost has not been identified. AMR solutions can, at best, deliver data every half hour, and at this frequency of data delivery, communication and data transfer costs can become prohibitive. Finally, the most robust energy monitoring systems provide true real time data. These systems are typically very expensive, and usually require on-site hardware and software. Utilization of these systems is limited to the largest, most sophisticated of commercial and industrial customers because of the required investment and ongoing expenses of maintaining such a system.

The nature of most residential customers, however, requires a simple solution, one that is easy to install and implement. Simple monitoring devices are available or could be developed with specific capability that targets residential behaviors.

Please also see ComEd's response to Question #12 below and Question #3 in the Longer-Term: Energy Efficiency/Conservation Initiatives section.

# 10. Tell us about existing demand response programs available to electric utility customers in Illinois.

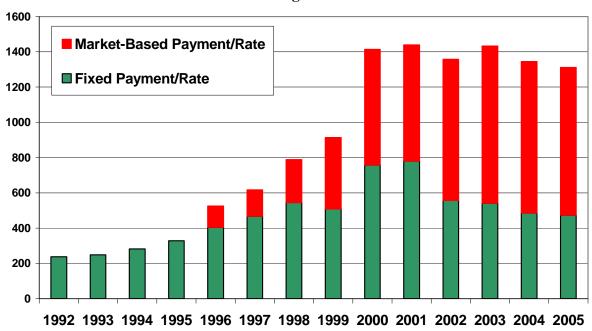
- a. How do they work?
- b. Who is eligible to participate?
- c. How does one enroll?
- d. What are the terms and conditions?

ComEd's demand response portfolio currently is one of the strongest in the nation. As shown in the chart below, customers representing over 1,000 megawatts of demand response are currently participating in ComEd demand response programs. In fact, when ComEd resources were added in May 2004, PJM Interconnection, L.L.C. ("PJM") doubled its pre-existing demand response capabilities to reduce system peaks.

Aside from expanding the availability of hourly energy pricing, which is discussed elsewhere in these comments, ComEd is seeking to restructure its current portfolio of demand response programs to be more consistent with the competitive Illinois retail market structure by (1) phasing out those tariffs that are vestiges of the pre-restructuring era and that provide fixed payments or rates to customers obtaining their electricity supply from ComEd and (2) maintaining those tariffs that provide market-based payments and are open to all customers,

regardless of who their suppliers are. Specifically, ComEd is seeking to continue three of the existing incentive-based, demand response programs (tariffs): Rider AC7 ("Nature First"), Rider VLR7 (Voluntary Load Response) and Rider CLR7 (Capacity Load Response). These tariffs constitute ComEd's core demand response programs for the post-transition period. Particularly noteworthy are Riders VLR7 and CLR7. These programs create a targeted, direct nexus between the wholesale and retail markets for non-residential customers by enrolling such demand response capabilities into existing PJM programs and passing through the full market value of both energy and capacity to participating customers. On the other hand, Nature First, which does not require residential customers to obtain electricity supply from ComEd, will continue to provide fixed payments due to the impact that a fluctuating payment based on today's market prices may have on participation and program implementation. In 2007, after the demand response portfolio is restructured, ComEd expects to maintain approximately 1,200 megawatts of demand response between these three programs. As PJM policies in the area of demand response continue to evolve, ComEd's demand response programs will also evolve.

# Megawatts of Demand Response Enrolled in ComEd Programs



The details of each of the three programs are set forth below.

### Nature First:

a. Nature First is a residential central air conditioning ("AC") cycling program, under which ComEd will cycle an AC unit's compressor on and off in order to reduce demand during the summer months. (The fan, however, remains on to circulate air, so the customer's home stays comfortable.) ComEd installs a

- control switch on the side of a participating customer's home or directly on the AC's compressor panel in order to manage electric demand.
- b. Residential customers that own their home and have central AC are eligible for Nature First.
- c. Customers can enroll by phone by calling 800-986-0070, Option 2 or online using ComEd's Nature First Program online form.
- d. The full Terms and Conditions are available in ComEd's Rider AC7 (Docket No. 05-0597, ComEd Exhibit 10.1), but can be summarized as follows: 50% Option
  - <u>Time:</u> Weekdays (excluding holidays), noon to 8 p.m.
  - <u>Unit cycles off</u>: Maximum of 15 minutes every half hour (if needed).
  - <u>Payment</u>: \$5 credit/month per household, June 1 through September 30. The total credit will be \$20.

# 100% option

- <u>Note</u>: Not recommended for those households where someone is home during most of the day or has a medical condition.
- <u>Time</u>: Weekdays (excluding holidays), noon to 8 p.m.
- <u>Unit cycles off</u>: One continuous 3-hour period during any weekday (if needed).
- Payment: \$10 credit/month per household, June 1 through September 30.
   The total credit will be \$40.

# Voluntary Load Reduction:

- a. Voluntary Load Response ("VLR") is a program that compensates commercial and industrial customers for reducing electricity use. As the name suggests, this program is strictly voluntary; there are no penalties associated with noncompliance (however, the customer does not receive any payments in noncompliance events). With VLR, participants agree to reduce their energy use by at least 10 kilowatts each time a load response event is requested. Incentive payments are based upon PJM's hourly energy market and/or system conditions, and minimum incentive amounts are set prior to the commencement of the load response event. Additionally, participants will be notified of minimum incentive amounts in advance of the event to assist them in determining whether or not participation will be economically beneficial for them. Compliance with a request to reduce usage is measured against a calculated load curve that reflects the customer's normal usage pattern. Cash or billing credits will be paid to participants by the end of each calendar year.
- b. Participants must be non-residential customers taking service under any ComEd bundled supply or delivery services tariff. Participants also must possess interval data recording meters or provide ComEd with an acceptable alternative method for measuring its load response performance and agree to provide at least 10 kilowatts each time a load response is requested.
- c. Customers can be enrolled by calling their ComEd Account Manager or by calling 877-4-ComEd-1 (877-426-6331).

- d. The full Terms and Conditions are available in ComEd's Rider VLR7 (Docket No. 05-0597, ComEd Exhibit 10.1), but can be summarized as follows:
  - Payment Amount: VLR participants who are called to participate in an energy event are guaranteed an incentive of at least \$0.50 per kilowatthour of reduced energy use during each load response event. This incentive may vary hourly depending upon PJM's hourly energy market and/or system conditions on the day of the event. These participants also may receive a "transmission and distribution" incentive, if offered. The value of this "transmission and distribution" portion will vary on an event basis and will be based upon system conditions (i.e., there is no guaranteed minimum payment). It is possible that only an "energy" incentive and not a "transmission and distribution" incentive will be offered during a given load response event.
  - <u>Notice</u>: Participants will receive at least a one-hour notice prior to each load response event.
  - <u>Duration</u>: Each time a load response event is requested, participants will be asked to participate for no less than two hours and no more than eight hours.
  - Penalties: There are no penalties for non-compliance.

## Capacity Based Load Response:

- a. Rider CLR7, which is also an extension of the PJM market structure, allows non-residential customers to receive payments for load reductions, similar to the manner in which generation is paid for supplying capacity. Like Rider VLR7, customers may participate even if ComEd is not their energy provider. Rider CLR7 is only for businesses that have firm ability to reduce their energy load. Non-compliance penalties are assessed to participants not complying with requests for load reductions during the period June 1st to September 30th. Participants capable and willing to commit to interruptions will receive fixed, market-based compensation for their commitment. Participants will receive compensation even if no interruption is requested.
- b. This rider is available to nonresidential retail customers that:
  - Receive bundled supply or delivery services from ComEd.
  - Have interval recording meters or have a written wavier from ComEd indicating that they have an acceptable alternative method to measure load response.
  - Meet the requirements of the PJM Active Load Management ("ALM") Program.
  - Agree to provide at least 100 kilowatts each time a load response event is requested
- c. Customers can be enrolled by contacting their ComEd Account Manager or by calling 877-4-ComEd-1 (877-426-6331).
- d. The full Terms and Conditions are available in ComEd's Rider CLR7 (Docket No. 05-0597, ComEd Exhibit 10.1), but can be summarized as follows

- Payment Amount: Depending on their abilities, participants can choose Firm Service Level option (a reduction in load to specified levels) FSL or Guaranteed Load Drop option (a reduction in load by a specified amount). The applicable reduction level is applied to the clearing price from the most recent PJM capacity auction, for the period of June 1st of the current year through May 31st of the subsequent year, to determine payments. A single annual payment equal to the total credit(s) earned less any penalty(s) for failure to comply with any load response event(s) during the twelvemonth period ending on September 30th of each year. In the event that a participant's penalty(s) are greater than the earned credit(s), the participant will be billed for the remaining balance. Payments and balances will be sent to the participant by December 31st of each year for all load response events occurring during the twelve-month period ending on September 30th of the same year.
- <u>Notice</u>: Two notification periods are available: Short Lead Time (30 minutes) and Long Lead Time (90 minutes)
- Frequency: This service can be used up to 15 events per year beginning June 1st and ending May 31 of the next year. Additionally, this service will be used only during weekdays.
- <u>Duration</u>: For each load response event, participants will be asked to reduce their load no fewer than 2 hours and no more than 8 hours during weekdays only.
- Penalties: Penalties will be calculated for each event and based upon the average compliance over the full hours of the load response event, as defined in PJM manual M-19.

# 11. Tell us about existing energy efficiency programs available to electric utility customers in Illinois.

- a. How do they work?
- b. Who is eligible to participate?
- c. How does one enroll?
- d. What are the terms and conditions?

ComEd currently offers several programs targeted primarily at residential and low-income customers, some of which have been incorporated into the CARE initiative:

■ Change a Light, Change the World — A lighting program aimed at extensive retailer and consumer education and awareness as well as incentives and marketing campaigns for traditional and specialty compact fluorescent lights. This program leverages ComEd's current participation in the Change A Light, Change The World Program, and assumes implementation via the Midwest Energy Efficiency Alliance in order to leverage existing market channels, manufacturer relationships, etc. throughout ComEd's service territory. All residential customers are eligible to participate. ComEd has supported this national campaign continuously since the Fall of 2001.

- Room Air Conditioner Exchange A room air conditioning program that encourages customers, through a bounty payment, to replace their old, inefficient, room air conditioners with those bearing the ENERGY STAR® label. This early retirement and replacement program is similar to New York State Energy Research and Development Authority's Keep Cool Program. Old room air conditioning units replaced through the program are permanently removed from the electric system through an appliance de-manufacturing process. This early replacement can result in significant energy savings and prevent the old air conditioning units from ending up on the secondary appliance market. A pilot program was launched during the summer of 2005 and will be expanded during the summer of 2006 under the CARE initiative. Participation is by invitation only to randomly selected ComEd customers that over the previous twelve months were certified by the state to participate in LIHEAP.
- ComEd-Shore Bank Partnership A 2005-2006 pilot program, the objective of which is to reduce the target customers' energy usage by providing them the resources to implement energy efficiency measures, including attic insulation, air sealing and programmable thermostats, in their homes. The target customer group is low-income owners of Chicago Historic bungalows. This initiative is designed to leverage weatherization rebates available from the City of Chicago and administered through the Historic Chicago Bungalow Association of up to 50% of the cost, with a cap of \$2000. This program will allow the customer the benefit of effective home weatherization, but will require no up-front, out-of pocket investment by homeowners because half of the cost is paid by the rebate and a low-cost loan is provided to the homeowner by Shore Bank and the South Side Community Federal Credit Union to assist with the other half of the cost.
- Reduced Energy Needs For The Elderly This program's objective is to reduce the target customers' energy usage by providing home energy efficiency products and services. This objective is part of a larger partnership with expanded goals that include improving the quality of life and creating self-sufficiency for low-income seniors. The target audience is low-income senior citizen homeowners that live within the west suburban Cook County area. The Proviso Council on Aging and West Suburban Senior Services administers this program along with approximately 75 other services and benefits available for low-income seniors, including LIHEAP and weatherization assistance available from state administered programs. ComEd sponsored a pilot program in 2003, and 2005 was the first full year of actual program implementation. The average assistance provided per household is \$1500, primarily for weatherization products and services, although it does take a "whole house" approach to energy efficiency and could include ENERGY STAR® appliance replacement.

Several other programs are available either statewide or regionally. The following list includes programs that ComEd has been involved with, informed of, or provided funding to (i.e., it is not intended to be an exhaustive list of all available programs).

- Illinois Clean Energy Community Foundation ("ICECF") Established in 1999 with a \$225 million endowment from ComEd, the foundation provides funding for energy efficiency projects as well as renewable energy projects and conservancy initiatives. Eligible customers are limited to non-profit (501c3) organizations and local government agencies serving Illinois residents. Grants are offered to targeted organizations as identified on the ICECF website. Most grant applications are solicited on a pre-established calendar cycle.
- Illinois Energy Efficient Affordable Housing Construction Program The Department of Commerce and Economic Opportunity ("DCEO") leads this effort, which provides grants to Illinois-based not-for-profit housing developers to include energy efficient building practices in new construction and rehabilitation projects. Applications are available on the DCEO web site.
- Manufacturing Energy Efficiency Partnership Targeted toward larger manufacturers, this program helps companies benchmark their energy management practices and develop action plans to improve their energy performance. The first phase of the program provides a One-2-Five diagnostic program which benchmarks the company against its peers and identifies areas for the manufacturer to focus on to improve energy management. Phase 2 provides 50% cost sharing (up to \$10,000) for the manufacturer to develop an action plan. Phase 3 provides 50% cost share (up to \$10,000) for development of technical analyses that support the action plan. DCEO has sponsored training for a number of consultants around Illinois; these consultants provide the primary channel for enrolling customers.
- Small Business \$mart Energy Program ("SB\$E") Services are provided by the Smart Energy Design Center, with staff from the University of Illinois at Urbana-Champaign School of Architecture and the Geothermal Heat Pump Consortium. The program offers graduated services to small business customers, including:
  - Level 1: Consulting services available to any business regardless of size or activity provides consultants to answer energy efficiency questions, provide information about the SB\$E program, and assess candidates for level 2 and beyond. Consultancy available via toll-free phone number. No enrollment needed for Level 1 support.
  - Level 2: Energy Audits available to facilities larger than 8,000 sq.ft. with at least \$50,000 in annual energy expenditures (facilities larger than 5,000 sq.ft may qualify if company has multiple locations. Audits available for existing facilities; review of new construction plans for efficiency opportunities also offered.

- <u>Level 3</u>: Design Assistance offered to eligible candidates who complete Level 2. A Level 3 applicant must agree to consider implementing identified energy efficiency measures with minimum 15% return on investment. SB\$E consultant provides more in-depth analysis of opportunities from Level 2 audit and provides life-cycle cost analysis. Opportunities ranked via cost/benefit analysis. For advanced support, interested customers download an enrollment form from the DCEO web site and submit the completed form to the project manager at DCEO.
- <u>Level 4</u>: Follow-up and implementation support for successful Level 3 candidates The Smart Energy Design Assistance Center ensures that participant receives implementation support, which may include alternative financing assistance, bid process support and field support.
- Industrial Assessment Centers The U.S. Department of Energy ("DOE") sponsors two centers in Illinois, at the University of Illinois-Chicago and Bradley University. These centers provide assessments to small and medium-sized manufacturers within Illinois. Eligible customers have gross annual sales below \$100 million, fewer than 500 employees at their site, and energy bills between \$100,000 and \$2 million. In addition to energy conservation, these studies also look at waste stream and productivity opportunities. Assessments are conducted by university students under the direction of experienced engineering faculty. Each center performs 25-30 assessments per year.
- Chicago Industrial Rebuild Program This multi-year program targets energy intensive industries within the City of Chicago. Sponsored by the Department of Environment, in partnership with ComEd, the Energy Resources Center at UIC and the Waste Management Research Center, this program provides comprehensive assessments to eligible manufacturers, plus offers financing for implementation of recommendations from the assessments. The program identifies a target industry during each phase, and eligible customers are solicited by the program partners.

In addition to these programs, a variety of federally-sponsored programs exist to Illinois consumers:

- The ENERGY STAR® program, which is sponsored by the DOE and U.S. Environmental Protection Agency, promotes and encourages the purchase and use of energy efficient consumer goods.
- The Energy Policy Act of 2005 provides a variety of tax incentives for the purchase and installation of selected efficient technologies.
- Federal and State efficiency codes and standards also exist in various forms. In 1987, the National Appliance Energy Conservation Act was signed into law, and additional efficiency standards have since been enacted for lamps, electric motors,

heating and air conditioning equipment. The standards encompassed in the Energy Policy Act of 2005 represent the most recent addition to the Federal energy efficiency standards, addressing numerous technologies including: fluorescent lamp ballasts, ceiling fans, dehumidifiers, commercial refrigerators. Additional information is available at:

# http://www.aceee.org/energy/applstnd.htm

• Illinois has recently adopted energy efficiency codes for new construction (Public Act 093-0936), which establishes minimum efficiency requirements for new commercial construction. Additional information is available at:

# http://www.illinoisbiz.biz/dceo/Bureaus/Energy\_Recycling/IECC.htm

Various products, services and information are also commonly available through the retail market (e.g., home weatherization products such as windows, doors, weather stripping and programmable thermostats).

- 12. What is the marginal cost of air conditioning load during the summer months (June, July, and August)?
  - a. How does that marginal cost vary over a day?
  - b. How do we convey that cost information to consumers?
  - c. What tools do they need to respond to those cost signals?

In 2007, for those ComEd residential and non-residential customers supplied through the fixed-price, full requirements service auction approved in Docket No. 05-0159 (i.e., CPP-A and CPP-B), the marginal cost of air conditioning load to ComEd will be determined by the prices resulting from the auction to be held this coming September. Although the auction prices are seasonally differentiated (i.e., ComEd will pay suppliers more in the summer than in the non-summer months), they are not time sensitive (i.e., ComEd will pay no more for power supplied at 3:00 pm than at 3:00 am during the summer or non-summer months). From a customer perspective, the translation mechanism (a.k.a., "rate prism") will convert the auction prices into per kilowatt-hour Supply Charges for each Supply Group based on its historic usage pattern. For those customers subject to time-of-day pricing, the rate prism will also establish peak and off-peak period Supply Charges for the summer and non-summer months. For all others served through this auction, the Supply Charges will be fixed during the summer and non-summer months. Once the auction prices are known and Supply Charges are determined, ComEd will inform customers as to these charges. No special tools are required for customers to respond to these prices, as discussed above.

In Docket No. 05-0159, ComEd obtained ICC authorization to expand the availability of hourly energy pricing to all residential customers on an elective basis. Thus, hourly service is an optional, voluntary service for residential and certain non-residential customers, but is the default or sole service available to other non-residential customers, such as those with generation facilities or for whom service has been declared competitive. For those residential

and non-residential customers served through the hourly-priced, full requirements service auction approved in Docket No. 05-0159 (i.e., CPP-H), the marginal cost of air conditioning load will be equal to the applicable PJM zonal locational marginal prices ("LMPs"). Information concerning zonal LMPs will be available through ComEd's website, at a minimum. Thus, internet access is the only "tool" required to respond to these prices. However, additional means may be made available to residential customers electing hourly energy pricing.

# 13. Given the short timeframe, what role can digital technology play in enabling consumers to change their behavior? What digital technologies exist that may be implemented in the short-term?

Such technologies are often costly and introduced slowly in the early stages of development and the related barriers make it a challenge to cost effectively employ digital technologies in the short term.

Digital technologies are constantly evolving and impacting the design of appliances, control systems, meters, and communications equipment. Technology can play an important role as energy efficiency enablers in and of themselves, as well as when utilized in conjunction with other enablers such as energy prices. Individual consumer commitment to change behavior (whether to control energy costs or for environmental or other reasons) has already led to the adoption of technology in these areas. Such technologies are often costly and introduced slowly in the early stages of development, and the related barriers make it a challenge to cost effectively employ digital technologies in the short term.

ComEd currently uses digital technology to control residential air conditioners, commercial and industrial loads and standby backup generation. On their own, many customers utilize digital technologies, such as programmable thermostats or sophisticated Energy Management Systems, to monitor and control their energy use. Such technologies help customers participate in ComEd's and other curtailment service providers' (or "CSP") demand response programs.

ComEd's current infrastructure and programs allow for additional customers to participate in a short timeframe. ComEd also has metering technology available to enable customers to view electric loads as quickly as the next day. This service is available through the ComEd's EDS products.

# **Short-Term Solutions: Low-income Consumer Assistance**

1. What impact will higher electricity prices have on various income groups? a. What will the overall impact be on households? Small businesses?

While ComEd does not collect data on customer income, it would appear that, all else being equal, any increase in rates will have a disparate impact on residential customer segments if

measured in relation to household income. ComEd is prepared to assist these customers with options available through the CARE program. Please see ComEd's response to Question #1 in the Short-Term Solutions: Customer Education section above.

In its June 2006 report, "Why Are Electricity Prices Increasing? An Industry-Wide Perspective" (at page 5), The Brattle Group measured the impact of rates relative to customer income. They reported:

American homes use 21% more power today than they did in 1978. Yet even with 21% greater use, the portion of our household budget we devote to our power bill has declined, from 3.7% to 3.0% over the same period.

Additional information is contained in Appendix A of The Brattle Group report, which is available at:

http://www.eei.org/industry\_issues/electricity\_policy/state\_and\_local\_policies/rising\_electricity\_costs/Brattle\_Report.pdf

Additional information comparing the percentage of income that is related to energy expenditures, broken down by income category, is available from The Federal Reserve Bank of Chicago:

http://www.chicagofed.org/publications/fedletter/cfljune2006\_227.pdf

ComEd is not aware of any similar research conducted for small business customers.

#### 2. Tell us about LIHEAP.

- a. How much money is available?
- b. Who is eligible to participate?
- c. Will there be more LIHEAP funds available to coincide with the impending rate increases?
- d. What efforts are underway at the state and federal levels to increase LIHEAP funding for low-income customers served by Illinois electric utilities?
- e. How does one go about applying for LIHEAP funds?
  - i. Can the process be streamlined? Explain.

ComEd offers the following responses:

- a. Approximately \$155 million is available state wide through federal and state funding.
- b. Any household/customer that has an income less than 150% of the non-farm poverty level.
- c. It is unknown at this time. However, as stated above, ComEd will donate \$1 million in 2006 to LIHEAP.
- d. Many organizations are advocating to increase both state and federal funding.

- e. An application may be taken at over 150 different LAAs within ComEd's service territory. A customer may call ComEd at 800-EDISON-1 (800-334-7661) to find a location nearest them
  - i. Because the State of Illinois administers the LIHEAP Program, it is up to the State to analyze whether the process could be streamlined.
- 3. According to survey information released by the Bureau of Labor Statistics, lower-income households currently pay a disproportionately higher percentage of their income for electricity. How can this be mitigated going forward?
  - a. Should special programs be implemented to alleviate the impact of price increases? Why or why not?
  - b. If yes, what should those programs be?
  - c. What role is there for low-income targeted installation of technologies, *e.g.*, programmable thermostats, price-responsive appliances, digital meters, etc.?
  - d. Would low-interest loans for homeowner insulation, energy-efficient appliances, etc. be worthwhile? Please explain.

# ComEd offers the following responses:

- a. LIHEAP works in many cases. The state and utilities are reviewing other options for future assistance programs. One such effort is ComEd's CARE program.
- b. ComEd's CARE program has several programs that will help to alleviate the impact of any price increases:
  - ENERGY STAR® Energy Star Window Air Conditioner Exchange Program 1,400 LIHEAP participants will receive an ENERGY STAR® window air conditioner in exchange for trading in their old inefficient unit. This will help to reduce their energy usage.
  - Free Compact Fluorescent Light Bulbs LIHEAP participants will receive a coupon for four free ENERGY STAR® compact fluorescent light bulbs. This also will help reduce their energy usage.
  - Current programs that provide assistance to low-income customers such as the Reduced Energy Needs for the Elderly, which provides senior citizens with energy efficient products and services, will also continue.
  - ComEd will also make a \$1 million contribution to LIHEAP to help lowincome customers with their electric bills.
- c. All new technologies should be discussed and evaluated. The State's weatherization program already includes some of the technologies noted in the question, such as programmable thermostats. Some of the newer technologies are extremely costly to implement and funding is a factor that would have to be addressed. Low–income customers will also be able to participate on a voluntary basis in the hourly energy pricing option, which becomes available to all residential customers starting in January of 2007.

- d. Low-income loans would help if the low-income household can make payments. However, because they are considered low-income households, this may be an additional burden on the households and, therefore, may not be helpful.
- 4. Will the existing energy assistance programs (e.g., LIHEAP) be sufficient to help offset the additional costs incurred by low-income consumers?
  - a. Should additional funding be sought to help low-income consumers?
  - b. If so, what is the best way to use those funds, e.g. bill assistance programs, weatherization, digital thermostats, metering, price-responsive appliances, etc.?

There is little question that the current level of federal funding for LIHEAP programs could always benefit from higher funding levels to meet the increasing needs that low-income customers face in paying their energy bills. ComEd's CARE programs for the low-income were designed to help offset, in part, additional energy costs. ComEd has also made additional contributions to LIHEAP. In 2005, ComEd contributed \$2 million to LIHEAP. In 2006, ComEd, as part of the CARE initiative, will be contributing another \$1 million.

- a. Funding, weatherization, CARE's air conditioning exchange program and compact fluorescent light initiatives are all programs that will help low-income consumers offset rising costs. The initial source of funds for the LIHEAP program comes from the federal government. Any additional funding that can be encouraged at the federal level or structures that would increase Illinois' share of that funding, should be encouraged.
- b. Different programs provide different benefits. Bill assistance programs provide the most immediate, direct benefits. However, new ideas, programs, and technologies should be discussed and evaluated as well.

# **Longer-Term Solutions: Consumer Education**

- 1. What is the best way to convey to consumers that they have the ability to control their electricity bill, for example by reducing peak load consumption?
  - a. How can this change in behavior be institutionalized?
  - b. Should financial incentives be given to customers to reduce their peak load consumption?
  - c. How should the information about hourly prices be conveyed to consumers? Who should be responsible for providing that information? Can this information be easily provided? Why or why not?

Education and time play important roles in the institutionalization of behaviors in both the short and long term. Please see ComEd's responses to Questions #9 in the Short-Term Solutions: Consumer Education section above and Question #1 in the Longer-Term Solutions: Demand Response below for further discussion.

As discussed in response to Question #10 in the Short-Term Solutions: Consumer Education section above, properly structured incentives do have a role in generally promoting demand response. However, in a competitive, quasi-regulated utility market, great care must be taken as a part of any attempt to induce behaviors through either financial incentives (i.e., price signals) offered by regulated utilities. Indeed, if the incentives are improperly designed, the effort may falter, competition may be harmed and/or uneconomic subsidies may be created. The participation incentives to be offered under ComEd's Riders VLR7 and CLR7, for example, are market-based, competitively neutral and self-funding.

With respect to the conveyance of hourly prices to consumers, please see ComEd's response to Ouestion #12 in the Short-Term Solutions: Consumer Education section above.

2. What education programs are being implemented in other states to inform consumers about the long-term impact of programs designed to mitigate rising energy costs?

Please see ComEd's response to Question #7 above under Short-Term Solutions: Consumer Education above. ComEd is not familiar with the details of any long-term education plans associated with such mitigation efforts, beyond those that were noted in Question #7. There is not a great deal of distinction in educational components of long term programs.

3. What long-term education efforts are being planned in response to the ComEd rate stabilization docket (06-0411) and the Ameren securitization (06-0448) docket?

With respect to the rate stabilization portion of the CARE program only, customers will be apprised of the changes in the applicable charges over the course of plan. However, it would be premature to address long-term education plans for the ComEd rate stabilization proposal, as several factors could influence or alter such efforts.

# **Longer-Term Solutions: Demand Response**

1. What is the best way to incent customers to reduce peak-load consumption? Please explain.

Aside from basic customer education and awareness, having a variety of customer options available and allowing the customers to select the option(s) that fits them best also will help facilitate customer efforts to reduce peak period load. For some residential customers the best option could be as simple as a programmable thermostat, a new energy-efficient AC unit or an automated response such as Nature First, while others may select hourly energy pricing. Similarly, non-residential customers need the flexibility to choose between interruptible, capacity-based incentives with voluntary energy options and strictly voluntary participation. Some require the convenience and ease of automated controls, while others must control their participation and equipment themselves due to their business activities. Moreover, some may

desire the certainty of fixed-price supply service, while the operations of others may enable voluntary participation in hourly energy pricing.

- 2. There are a number of mechanisms available to help customers reduce their demand for electricity. Please comment on the economic, operational and reliability costs and benefits associated with the following:
  - a. Rate design
  - b. Information and metering
  - c. Demand management
  - d. Distributed generation

As discussed above, ComEd holds one of the largest demand response portfolios in the nation and employs many of the elements referenced in this question. Nevertheless, it is difficult to comment on the costs and benefits of demand response, or reduction, at a conceptual level. The analysis is a highly fact-dependent and complex task that requires significant time and effort and a clear valuation methodology. This fact is highlighted in the February 2006 DOE report, "Demand Response in Electricity Markets and Recommendations for Achieving Them," referenced in the Chairman's memorandum. After reviewing 10 studies, DOE concluded (at vii) that:

the estimated benefits of demand response are driven primarily by the quantification method, assumptions regarding customer participation and responsiveness, and market characteristics. Without accepted analytical methods, DOE finds that it is not possible to quantify the national benefits of demand response.

To the extent that any of the four elements identified in this question contribute to the successful deployment of response, or reduction, resources, the value would be the result of the cost-benefit relationship and the methodology for determining such relationship. Nevertheless, it is generally true that each of the elements listed above are potential components of a successful portfolio of programs or resource strategy, but none of them can necessarily stand on its own.

ComEd also offers the following general comments regarding the four elements identified in this question:

- a. Rate Design Hourly energy pricing is an example of a rate design that can be used to send price signals to reduce their demand for electricity, especially in the larger commercial and industrial customer segment where hourly metering is in already in place and the customers have access and understanding of hourly wholesale price fluctuations and patterns. The same can hold true in the residential sector. As the Commission is aware, in partnership with the Center for Neighborhood Technology, ComEd has run a pilot program to measure the benefits and identify issues with hourly residential pricing.
- b. Information and metering With respect to the metering and communication of hourly price fluctuations to customers, please see response above. With respect to

"general" information concerning usage, ComEd believes a first step in helping customers reduce their demand is through general customer awareness of usage and customer education or "tips" as to how to reduce usage through conservation. This is why the ComEd CARE program has heavy education and public awareness components.

- c. Demand Management Please see ComEd's comments concerning demand response programs and devices.
- d. Distributed generation It should be clarified that distributed generation does not "help customers reduce their demand for electricity." Rather, distributed generation is a substitute for (or back-up to) the purchase of energy from local utilities or alternative suppliers. Furthermore, the economics of distributed generation are heavily driven by the cost of the fuel. High natural gas prices have negatively impacted the relative economics of gas fired distributed generation in recent years.

# 3. What role can technology play in enabling residential demand response?

Control technologies make it easy for customers to participate in demand response programs and have been used throughout the country on various residential loads. In fact, such technology is what enables ComEd's Nature First, where direct control units are installed at central air conditioning units. Furthermore, control technologies have recently been integrated with programmable thermostats, providing further control and efficiency and potentially a point of communication. Longer term, more sophisticated appliances and better usage information are two developments that also may play a role in residential demand response.

# **Longer-Term:** Energy Efficiency/Conservation Initiatives

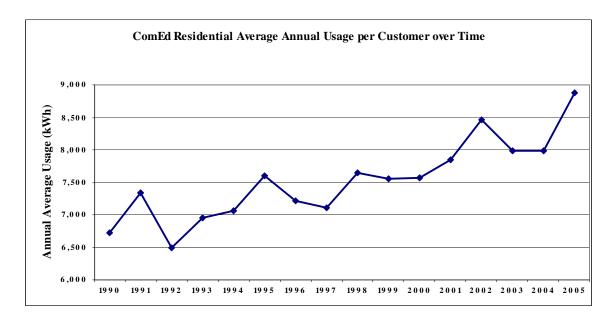
- 1. How have residential consumer consumption patterns changed over the last ten years?
  - a. Residential consumers continue to acquire more and more electronic appliances and gadgets. How has the increased reliance on electronics altered consumption trends?
  - b. Are there noticeable trends based on income class?

ComEd has observed that residential electricity use per customer has been increasing over time. This can be substantiated using publicly available information. The table below contains ComEd's residential sales and average number of residential customers for the years 1997 and 2003 from the 1997 and 2003 FERC Form 1 reports. These two years were selected because the weather conditions were similar in terms of cooling and heating degree-days, but were sufficiently apart in terms of the number of years to highlight trends in use per customer. The average annual growth over the six years in total sales was 2.84%, which is composed of a 0.86% annual average increase in the number of residential customers and a 1.97% annual average increase in the use per customer.

# ComEd Residential Usage Per Customer: 1997- 2003

Year	Cooling Degree Days	Heating Degree Days	Residential Sales (kWh)	Average Number of Residential Customers	Average Annual Usage per Residential Customers (kWh per Customer)
1997	684	6,590	22,150,740,553	3,116,111	7,108
2003	695	6,447	26,205,406,790	3,280,007	7,989
Cumulative Growth			18.30%	5.26%	12.39%
Annual Growth Rate			2.84%	0.86%	1.97%

Further, a graphical representation of the residential use per customer from 1990 to 2005 is shown in the graph below. The annual fluctuations are largely a function of changing weather conditions year-over-year, but a rising trend in use per customer can be clearly observed.



With respect to Question #1a, ComEd does not have company-specific data that can address the question. However, the increase in the number of electronic appliances and devices within residential homes is believed to be one of the factors leading to increased residential usage over time. Some of the more commonly noted factors attributing to increased residential electricity usage are:

- Kitchen appliances and latest home and gaming electronics
- Increase in the average size of housing units
- Many home improvements within existing homes include additional lighting fixtures

National and regional information is available from The Energy Information Association ("EIA"). The link below also provides a detailed description on EIA's report of consumption by various appliances and their outlook on energy efficiency and consumption.

## http://www.eia.doe.gov/emeu/reps/enduse/er01\_enc.html

Additional information concerning the EIA's detailed survey on residential end-use electricity consumption can be found at:

# http://www.eia.doe.gov/emeu/reps/enduse/er\_contents.html

The Long Island Power Authority also offers insights on residential electricity consumption trends in one of its annual surveys. Below is the link to their 2005 report (see pages 29-30).

## http://www.lipower.org/pdfs/company/pubs/popsurvey05.pdf

With respect to Question #1b, ComEd does not have usage by income class data to establish a historical trend. Generally speaking, increasing real income per household over time does correlate well with increasing electricity usage per customer, as it is a significant variable within ComEd's residential customer class usage model. However, that cannot be extrapolated to arrive at conclusions related to usage by income class. Of potential interest is the following table that ranks each state based on an estimate of residential electricity bills as a percent of median household income, for the year 2002. Illinois' electricity bills comprise a small percentage of household income, as compared to other states, and is ranked 42<sup>nd</sup> nationwide.

# State Ranking of Residential Electricity Bills as a Percent of Household Income for the Year 2002

	Electricity			Electricity	
	Bill as a			Bill as a	
	Percent of			Percent of	
<b>State</b>	Income (1)	Ranking	<b>State</b>	Income (1)	Ranking
Mississippi	3.96%	1	Kentucky	2.22%	26
Florida	3.60%	2	Virginia	2.21%	27
Louisiana	3.52%	3	Indiana	2.21%	28
South Carolina	3.41%	4	Kansas	2.20%	29
Alabama	3.38%	5	Ohio	2.19%	30
North Carolina	3.24%	6	New York	2.10%	31
Texas	3.13%	7	Hawaii	2.09%	32
Arkansas	3.13%	8	Washington	2.03%	33
Tennessee	3.02%	9	Nebraska	1.99%	34
West Virginia	2.90%	10	Wyoming	1.94%	35
Oklahoma	2.76%	11	Connecticut	1.92%	36
Georgia	2.72%	12	New Mexico	1.90%	37
Maine	2.70%	13	New Hampshire	1.81%	38
Delaware	2.70%	14	Wisconsin	1.80%	39
Vermont	2.61%	15	Maryland	1.77%	40
North Dakota	2.58%	16	Alaska	1.75%	41
Idaho	2.47%	17	Illinois	1.73%	42
Arizona	2.46%	18	California	1.71%	43
Montana	2.46%	19	New Jersey	1.70%	44
Nevada	2.46%	20	Michigan	1.66%	45
South Dakota	2.42%	21	Massachusetts	1.57%	46
Missouri	2.36%	22	Minnesota	1.47%	47
Iowa	2.23%	23	Rhode Island	1.47%	48
Pennsylvania	2.23%	24	Utah	1.34%	49
Oregon	2.23%	25	Colorado	1.32%	50
			District Of Columbia	1.11%	51

<sup>(1)</sup> Technically, the percentage is total residential revenue per state divided by the number of households and then divided by the median household income for the state.

## 2. What is the consumption trend for commercial/small industrial customers?

Similar increasing use per customer is observed in the Small Commercial and Industrial populations (see table below):

ComEd Small Commercial & Industrial Usage	ne Per Customer: 1997- 2003
	,

Year	Small C&I Sales (kWh)	Average Number of Small C&I Customers	Average Annual Usage per Small C&I Customers (kWh per Customer)
1997	25,859,648,859	290,365	89,059
2003	30,865,015,212	327,141	94,348
Cumulative Growth	19.36%	12.67%	5.94%
Annual Growth Rate	2.99%	2.01%	0.97%

The average annual use per customer for the Small C&I customers group grew at 0.97% annually from 1997 to 2003.

Again, EIA is a good source for more information and EIA's survey on "Commercial Buildings Energy Consumption" trends is found in the attached link:

http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/cbecs\_trends/main\_menu.html

3. How can pricing signals or changes in rate design be implemented to provide a more timely information flow to the customer and how should that timeliness be accomplished? How important is the timing of the information flow? Please explain.

In addition to the targeted demand response programs such as Riders VLR7 and CLR7, which as discussed above provide payments to participating customers that are directly tied to PJM market prices, another example of how pricing signals can be implemented to provide real-time information to customers is hourly-energy pricing. As approved in Docket No. 05-0159, those customers that can efficiently manage their usage and are essentially willing to "play the spot market" can directly manage their bills by electing ComEd's hourly energy service, where the charge for energy varies on an hourly basis with PJM LMPs. To such customers, the timing of information flows and, in turn, responding to such information are critical. Similarly, the annual and rolling three-year auction cycles of the fixed-price CPP-A and CPP-B auction approved in Docket No. 05-0159 also serve to keep price signals both current with the market and relatively stable. However, the importance of "a more timely information flow to the customer" would depend to a large extent on the willingness and ability of such

customer to respond to such information in a timely manner. For customers unwilling or unable to mange their usage in such a fashion, the timeliness of information is less relevant.

- 4. What role could digital technologies play in promoting conservation?
  - a. What are the benefits of such technologies?
  - b. What are the costs of implementing such technologies?

Digital technologies are constantly evolving and impacting the design of appliances, control systems, meters, and communications equipment. Technology will continue to play an important role in the longer term as energy efficiency enablers in and of themselves, as well as, when utilized in conjunction with other enablers such as energy prices. Individual consumer commitment to change behavior in order to control energy costs will continue to effect the adoption of technology in these areas. Even as long-term opportunities, such technologies are anticipated to be more costly and introduced slowly in the early stages of development, and the related barriers make it a challenge to cost effectively employ digital technologies in the long term.

- 5. Should utility companies be actively promoting energy conservation programs? Why or why not?
  - a. Who should be the recipients of those programs?
  - b. How should the costs associated with those programs be recovered?

Yes. As delivery services company, Illinois utilities are uniquely positioned to advance energy conservation programs, whether for environmental or societal purposes, to all consumers, regardless of who their energy supplier might be. In fact, ComEd believes that it is permissible for it to be involved in such efforts and that the costs associated with those efforts might be appropriately recovered in its rates for electric service under existing law. Furthermore, as shown in the following survey of key states, utilities typically play a significant role in energy efficiency and conservation programs:

- California: California offers a broad array of efficiency programs, most of which are administered by utility companies with some administered by the California Energy Commission. The 2006 budget for efficiency expenditures is \$638 million statewide for both electric and gas, a marked increase from previous years spending. Utilities provide incentives for lighting, HVAC, motors, and custom efficiency improvements. A number of third party (including municipally-based) programs are also offered. Educational efforts include the FYP website, discussed above, the Consumer Energy Center and Energy Quest (a website designed for students, parents and teachers).
- Connecticut: Connecticut's two investor-owned utilities, Connecticut Light & Power ("CL&P") and United Illuminating ("UI"), administer programs with input and assistance from the Energy Conservation Management Board, and with regulatory oversight from the Connecticut Department of Public Utility Control. In 2004, \$67 million was spent on programs from these two utilities. The

programs administered by CL&P and UI are similar though not identical. A variety of residential and non-residential incentive programs are offered by both utilities, including appliance retirement, ENERGY STAR lighting and appliances, new construction and low income. Educational programs offered include the SmartLiving Center developed by UI, SmartLiving Center Museum program developed by CL&P, and eeSmarts (an education program targeted at K-8 primary school students, with pre-developed curricula and teaching tools).

- Minnesota: Minnesota's Conservation Improvement Program ("CIP") requires energy utilities to fund energy conservation programs. In 2003, electric utilities spent \$77 million on CIP. Utilities are responsible for developing and administering portfolios that meet the CIP guidelines, and these programs are subject to the oversight of the Minnesota Department of Commerce. Typical programs include appliance and lighting incentives, home energy audits, motor and HVAC incentives, and low interest financing. Low Income efficiency programs are typically contracted by the utilities with Community Action Program agencies. Educational programs vary by utility. Xcel Energy, for example, offers the EnergySmart University, a 'virtual college' that focuses on energy-related issues.
- New York: NYSERDA (New York State Energy Research and Development Authority) oversees the New York Energy \$mart portfolio which contains a wide variety of programs. The eight-year budget for the portfolio is \$962 million, or \$120 million per year. The breadth of the portfolio includes demand response programs as well as a variety of efficiency incentive programs, which include new construction, HVAC and lighting incentives. Other programs include the Energy \$mart loan fund for implementation, ENERGY STAR labeled homes, and low-income programs including Empower New York (a combination of energy efficient measure implementation and customer education). The portfolio also includes a variety of research programs and education components such, as the Energy Smart Students Program, which provides curriculum materials for K-12 teachers on energy sources, uses and efficiency.
- New Jersey: Energy efficiency programs in New Jersey have traditionally been offered by the utility companies as part of the New Jersey Clean Energy Program ("NJCEP"), although program control is being transitioned to a state-hired third party. The 2005 budget for these programs was \$102 million statewide. Incentives are offered for lighting, HVAC, motors, and custom projects. Residential programs include ENERGY STAR home certification and incentives for ENERGY STAR room air conditioners. NJCEP also offers Comfort Partners, a low-income targeted program that combines direct installation of energy efficiency measures with a personalized education component for eligible customers.

Wisconsin: Most energy efficiency programs in Wisconsin are administered under the Focus on Energy ("FOE") umbrella. FOE has an annual budget of approximately \$62 million; however, nearly half of those funds have been diverted to balance deficits in the State's general fund. FOE provides prescriptive and custom incentives for non-residential customers as well as a variety of prescriptive incentives for residential customers in Wisconsin. It also offers a K-12 Energy Education Program (or "KEEP") with home energy education and school-based education components and tools. In addition to FOE, some utilities provide incentive programs to their customers, usually as part of a new power plant proceeding.

As part of the discussions culminating in the release of Governor Blagojevich's's Sustainable Energy Plan, ComEd began investigating energy efficiency programs for potential implementation as part of a voluntary or mandatory energy efficiency procurement initiative. In beginning to address the types of long-term energy efficiency programs that should be considered, ComEd contracted with NERA and ICF in August 2004 to provide a report on best practices for energy efficiency programs. The following is offered directly from that report (citations omitted), which can be made available to the Commission.

# **A Best Practice Portfolio**

Best practice typically is viewed in the context of an individual program. However, rarely is a single program deployed by a utility; rather portfolios of programs designed to satisfy multiple market segments are the norm. It is at the portfolio level where performance matters most, and a strong efficiency portfolio, like any portfolio, is intended to balance risk in a way that ensures overall efficiency targets are met. Thus, best practice should be extended to the design and management of a program portfolio. In this context, best practice is characterized by relatively low administrative cost, overall performance, adaptability, and broad customer satisfaction. However, as every effective program fits the unique circumstances of each utility, an effective portfolio represents the combination of programs that best meets an often broad set of utility-specific objectives. Based on [NERA and ICF's] experience in working with similarly situated utilities, [they] suggest the following guiding principles and programs as basic elements of a portfolio for a utility new to the market.

#### Portfolio design principles

Although these principles appear intuitive, it is [NERA and ICF's] experience that many portfolios are over-designed and, therefore, complex, costly to administer and less effective per incentive dollar spent.

• Flexibility is key – Individual programs should have relatively open designs that allow rapid changes if dictated by market response. Similarly, one should expect that the mix of programs and the allocation of funds to specific programs will need to change, perhaps frequently. This is not to suggest that the secret to success is

- frequent changes in programs quite the opposite the basic stability of a portfolio is enhanced by designing it to adapt to change and learning.
- Fewer programs with greater reach should be preferred. For example, a well-designed prescriptive and custom incentive program might be the only two C&I programs needed. Fewer and larger programs provide administrative economies of scale and scope, and are less likely to confuse customers. Programs targeted at specific end uses or technologies are best suited to cases in which a specific delivery approach is required to overcome some market hurdle. Also requires a more streamline approach to implementation, i.e., few implementers.
- Program designs should be kept simple. Complexity, while sometimes necessary to address hard-to-reach markets, is not necessary for a portfolios core programs. Complexity inevitably increases both management and implementation costs.
- Leverage trade allies and upstream market actors. Perhaps the greatest lesson learned from the last ten years of program implementation is that working with manufacturers, distributors, retailers and service allies often yields greater bang for the buck than attempting to directly influence customers.
- When beginning from a cold start, a phased approach to deployment of multiple programs works best. This is particularly the case when program management resources are limited. Even if a utility chooses to outsource much of the in-field management of program implementation, the development of internal policies and procedures, building strong internal teams and developing program management expertise takes time. Attempting to put too many programs into the field at once can easily overload management capacity and create customer dissatisfaction.

### The Elements of a "Starter" Portfolio

The right portfolio is the one that best meets a utility's unique objectives. Nevertheless, almost every portfolio is based on the desire to simultaneously offer services to all major customer classes at the lowest cost. As a rule-of-thumb, core C&I [commercial and industrial] programs such as prescriptive and custom rebate programs are the least expensive to deliver per kW or kWh saved (in the range of \$700/kw - \$900/kW), while programs aimed at hard-to-reach residential and small commercial markets are the most expensive (can be upwards of \$2,000/kW). Therefore, the core elements of a portfolio with resource acquisition objectives will be these types of commercial and industrial programs (also made available to institutional and government customers). The least expensive and often most popular types of residential programs will typically be lighting and appliance rebate programs that can tap into retail networks already familiar with the ENERGY STAR brand and utility rebate programs. Virtually every national manufacturer and retail chain has worked with utility programs in multiple jurisdictions. Sears, for example, is a major participant in the ENERGY STAR branding campaign and participates in many rebate programs around the country. ENERGY STAR new homes

programs also often can be implemented at relatively low cost if there is an existing home energy rating infrastructure in place in the service territory.

Finally, the structure of a portfolio must take into account ongoing energy efficiency activity in the region. If other entities are already implementing programs, care must be taken to not introduce competing offers that will create market confusion. For example, the Illinois Clean Energy Community Foundation appears to provide substantial funding for local government and school energy projects that are dominated by lighting upgrades. Should ComEd introduce a lighting program, and particularly if incentives are structured differently, customers are likely to be confused by what appear to be competing offers, and some will likely attempt to double-dip.

Based on these considerations, a typical "starter" portfolio of efficiency programs might include the following:

- Commercial and Industrial Prescriptive Incentive Program Available to all C&I customers. The program would provide fixed, posted rebates for specific common measures. Measure savings would be stipulated to simply estimates of overall program savings and to reduce administrative requirements.
- Commercial and Industrial Custom Incentive Program Typically available to larger C&I customers with more complex processes or systems. Incentives would be capped at price per kW and kWh, and the total incentive amount would be calculated based on an energy analysis. The cost of the energy analysis would be shared by the customer and the utility.
- Commercial and Industrial O&M Best Practices This type of program aims to deliver technical training and support rather than incentives to address changes in operational practices that can yield efficiency gains. Incentives could be incorporated to fund innovative O&M improvements that could serve as case studies available to other customers.
- Small Commercial Lighting Direct Install This might be considered an optional program, implemented primarily to provide program coverage to the smallest commercial customers. Typically these customers are hard to reach with energy efficiency programs, requiring a program design that incorporates a one-stop audit and installation process coupled with relatively high incentives.
- Residential ENERGY STAR Homes This program can yield substantial savings if new homes are being built with central air conditioning. However, this type of program requires relatively more market interaction and is would be appropriate as part of a starter portfolio only if a relatively active home energy rating (HERS) infrastructure already exists.
- ENERGY STAR Lighting and Appliances This is the most common and most cost-effective mass market residential program. Virtually every utility provides some form of this program. It is most effective if closely coordinated with manufacturers and/or retailers and incentives are offered.

■ Community-Based Low Income Multi-Family Retrofit — This type of program often is one of the most expensive that a utility can operate, but also can be effective in reaching a difficult market characterized by split incentives and complex management structures. Using community-based housing organizations for recruiting and service coordination greatly strengthens recruiting and helps build a sustainable organizational infrastructure to support energy efficiency.

The NERA and ICF report also summarizes key programs identified as best practice for a variety of market segments.

The best practices programs summarized exhibit a number of common characteristics. First, as noted earlier, more programs are taking a comprehensive approach, in that they seek to improve the energy efficiency of entire buildings or industrial processes. Programs targeting a single or narrow set of end-uses still exist and can be successful, but the marketing of these programs tends to be comprehensive and well integrated with other offerings. Additionally, programs are increasingly customized and customer-focused to supplement existing prescriptive track programs by meeting customer's unique needs and allowing for innovation. Strong marketing, including promoting non-energy benefits in addition to energy efficiency improvements, is essential in attaining high participation rates, and effective training and technical assistance are vital for ensuring program savings. The best practices studies also revealed that financial incentives are still widely used, although they are less frequently targeted at end users, and increasingly at upstream market participants, such as contractors, builders, and retailers.

Both market transformation and resource acquisition programs are included in the review. Residential market transformation programs tend to target specific products and technologies (an exception being ENERGY STAR homes programs), while commercial and industrial markets programs seek to transform professional energy-related practices. Partnerships and collaboratives are often suggested as a key to program success, although in our experience collaborative processes are a double-edged sword. If a collaborative exists primarily to refine program strategies it can be quite useful by bringing more market information into the design process. On the other hand, collaboration often is a political artifact, put in-place to satisfy various interests not all of whom are market participants. While this element of collaboration can be essential, it inevitably leads to the need for a greater commitment of time and resources, and sometimes to what one might consider "Rube Goldberg" program designs.

Based on the foregoing and the key concepts outlined in the Governor's proposed Illinois Sustainable Energy Plan, the ICC Staff Report dated July 7, 2005 and the Commission's July 19, 2005 Resolution (Docket No. 05-0437), ComEd has developed a preliminary draft of a long-term, energy efficiency portfolio. At this point, it is expected that such a portfolio would be implemented on a voluntary basis pursuant to the Commission rulemaking proceeding already underway in Docket No. 06-0388. During the rulemaking proceeding, ComEd expects that the various policy objectives set forth in the Governor's Plan, including achieving

a targeted level of gigawatt-hour savings, will be addressed. In addition to addressing fundamental regulatory matters, such as Commission approval, utility cost recovery and the reporting and evaluation of programs, it is also expected that programs will be considered and designed with appropriate consideration of other important priorities and issues. Thus, ComEd's efforts at devising energy efficiency programs have been informed by the following concepts, principles and expectations:

- The pace of expenditures for energy efficiency should balance concern about short-term rate increases and the long-term value to customers: Energy efficiency programs have the potential to provide long-term value to the customers participating in such programs, as well as providing a long-term energy resource. Because initial investments are required in order to realize the long-term benefits, ComEd acknowledges that there should be short-term protections built into the process to limit the initial rate impacts to customers.
- Costs for energy efficiency should be competitive with the long-term costs of traditional forms of electric supply: While individual programs may vary in order to accomplish other important policy objectives, the portfolio cost of energy efficiency should not exceed the portfolio cost of supply.
- Energy efficiency services should be procured through a competitive energy efficiency procurement process: ComEd expects to take advantage of the extensive experiences and achievements of energy efficiency programs from around the nation. Purchases of energy efficiency services are expected to be secured through a competitive solicitation process. ComEd would not expect to build a large-scale internal energy efficiency structure and staff for the field implementation of all programs.
- Programs should be selected and designed with appropriate consideration of other important priorities: While economics is the key driver for energy efficiency programs, there are other important considerations and priorities that ComEd expects to address as part of the development of any final program plans. These include:
  - Priority will be given to programs addressing on-peak energy reduction. The
    greatest value for energy efficiency is during on-peak hours when electricity
    resources are most constrained and market prices for electricity are highest.
  - Emphasis is expected to be placed on program design and delivery that minimizes free riders and/or maximizes spillover benefits.
  - Emphasis is expected to be placed on the installation of technologies, as opposed to behavior-based programs. Technologies are expected to be emphasized because their impacts are more confidently measured and verified, and the associated savings are more reliable and sustainable over time.
  - The residential and low-income customer segments are expected to be targeted for energy efficiency services and/or programs.

- In response to the Commission's Resolution concerning innovation and creativity, ComEd would expect to establish approximately 5% of the energy efficiency budget to support research activities to ensure that creative ideas are not discarded solely because of traditional program cost-effectiveness standards. ComEd's plan for research would allow for pilot tests of innovative program concepts, co-funding with external parties, and conducting primary and secondary research to improve program design and performance.
- Diversity will be encouraged among the supplier, bidder, and trade ally community.
- A flexible portfolio will allow resources to be directed at programs that are successful and cost-effective, while programs that do not achieve desired results might be redesigned or replaced.
- Energy savings from programs should be routinely reported and independently evaluated in order to ensure energy savings are realized: Reporting of program operating results and independent evaluation of program performance and impacts are essential to long-term, sustainable energy efficiency. ComEd would expect to provide program reports to the Commission on a predetermined basis (e.g., quarterly), and independent evaluation of program results will likely also be available (e.g., annually). Furthermore, ComEd would expect to fund the independent evaluation within a limit of 5% (as supported by ComEd's recent benchmarking effort) of the energy efficiency budget. The purpose of the evaluation would be directed toward determining actual energy efficiency savings and future program improvement—not for purposes of hindsight cost disallowances.
- A portfolio of programs covering a breadth of electricity end uses and customer classes will be expected: ComEd expects that the funding allocation for program expenditures will approximate the contribution of the key customers' contribution to ComEd revenues (i.e., 1/3 residential and 2/3 non-residential).

While the foregoing is by no means a substitute for the feedback and robust discussions that will occur as part of the Commission's rulemaking proceedings, it has enabled ComEd to progress in its review of potential programs.

In light of the foregoing considerations, ComEd has preliminarily identified 17 potential programs, which it is investigating further: five low-income residential, four general residential and eight non-residential programs. A brief summary of these programs is shown in Attachment 3. As discussed previously, any final portfolio would likely include pilot and demonstration projects. ComEd expects this program list to evolve as it continues to learn more and receive comments from external parties and stakeholders. These programs assume a start-up time of roughly 12 to 18 months to build the infrastructure for program delivery, which is dependent upon conclusion of the rulemaking and/or other regulatory proceedings. It is anticipated that certain programs can be ready and launched at different times during the 12 to 18 month start-up time.

In developing this program list, ComEd has consulted the following entities, in addition to NERA and ICF Consulting:

- <u>Utilities</u>: We Energies, National Grid, Mid American, Kansas City Power and Light, Pacific Gas and Electric, Xcel
- Non-Governmental Organizations: Midwest Energy Efficiency Alliance,
   American Council for an Energy Efficient Economy, Alliance to Save Energy and
   Natural Resources Defense Council
- Consultants: Summit Blue Consulting, KEMA/Xenergy and Analysis Group

ComEd has also reviewed reports and studies from energy efficiency organizations such as the American Council for an Energy Efficient Economy, plus websites such as the Best Practices Benchmarking for Energy Efficiency Programs:

## http://www.eebestpractices.com

ComEd recently conducted meetings with several external energy efficiency organizations (American Council for an Energy Efficient Economy, the Alliance to Save Energy and the Natural Resources Defense Council) to discuss the preliminary list of programs. These organizations were consistent in their reactions that the ComEd draft portfolio represented a substantial effort, while also mentioning that they felt there was additional energy efficiency that could be accomplished beyond the programs contained in this preliminary list. They agreed with such features as relying upon the tried and true programs from other states, especially initially, and providing a broad selection of programs covering all customer classes and key end uses.